


# 1207OS CTD Processing Summary (/cruises/2012-cruises/calcofi-cce-1207os/326-1207os-ctd-processing-summary.html)

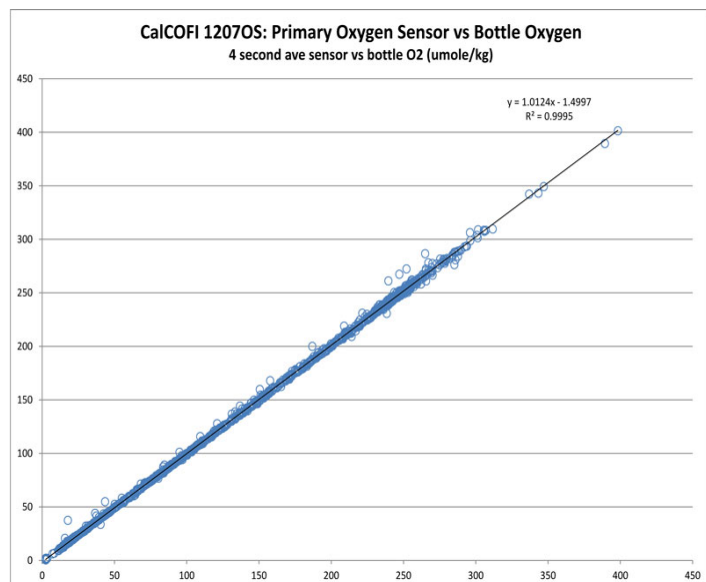
Parent Category: 2012 Cruises (/cruises/2012-cruises.html)

Category: CalCOFI-CCE 1207OS (/cruises/2012-cruises/calcofi-cce-1207os.html)

 Last Updated: 10 March 2017

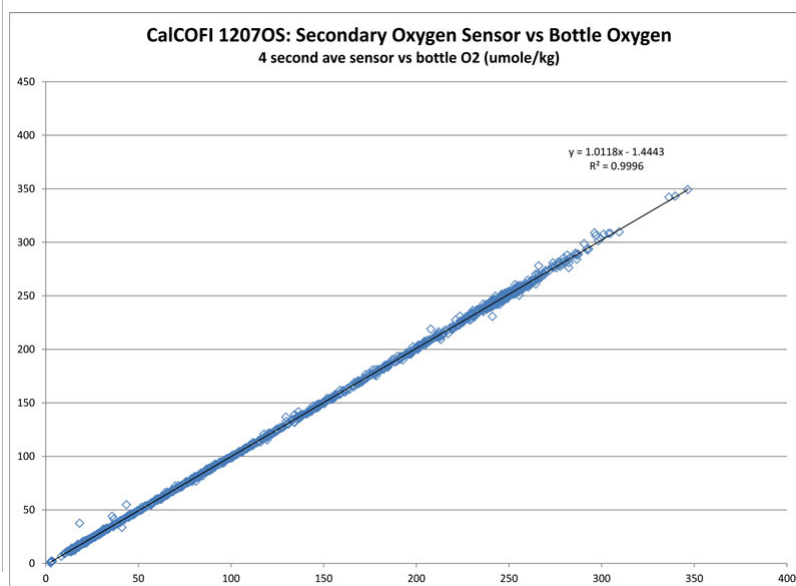
CTD Processing Summary CalCOFI 1207OS CTD Data (reprocessed Mar 2017, adding data quality code columns)			
Download 1207OS CTD raw cast files zipped ( <a href="http://cappuccino.ucsd.edu/downloads/2012/20-1207OS_CTDCast.zip">http://cappuccino.ucsd.edu/downloads/2012/20-1207OS_CTDCast.zip</a> )		Download 1207OS FinalQC CTD + bottle data ( <a href="http://cappuccino.ucsd.edu/downloads/2012/20-1207OS_CTDFinalQC.zip">http://cappuccino.ucsd.edu/downloads/2012/20-1207OS_CTDFinalQC.zip</a> )	
General CTD Notes - data acquisition notes, logistics, processing - see below			
CTD sensor corrections derived by comparing 4 secs of CTD sensor data (prior to bottle closure) to bottle samples			
Dual T, S, & O2	Primary Sensor	Secondary Sensor	
Salinity offset ( <a href="http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_SaltOffsets.pdf">http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_SaltOffsets.pdf</a> ) (bottle - CTD salinity; > 350m only; Seabird SBE4)	-0.0066	-0.0037	
Oxygen mL/L (dual Seabird SBE43)	y = 1.0092x - 0.035 R <sup>2</sup> = 0.9995	y = 1.0087x - 0.339 R <sup>2</sup> = 0.9997	
Oxygen umole/Kg (dual Seabird SBE43)	y = 1.0124x - 1.4997 R <sup>2</sup> = 0.9995	y = 1.0118x - 1.443 R <sup>2</sup> = 0.9996	
Single sensors			
Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2)	y = 29.052x - 8.422 R <sup>2</sup> = 0.9932		
Fluorometer - power, polynomial & linear regressions	y= 7.9341x <sup>1.3493</sup> R <sup>2</sup> = 0.8312	y= 1.233x <sup>2</sup> + 5.4441x - 0.061 R <sup>2</sup> = 0.7044	y = 6.9145x - 0.01672 R <sup>2</sup> = 0.6959

([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_Ox1VsOxB.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_Ox1VsOxB.jpg))

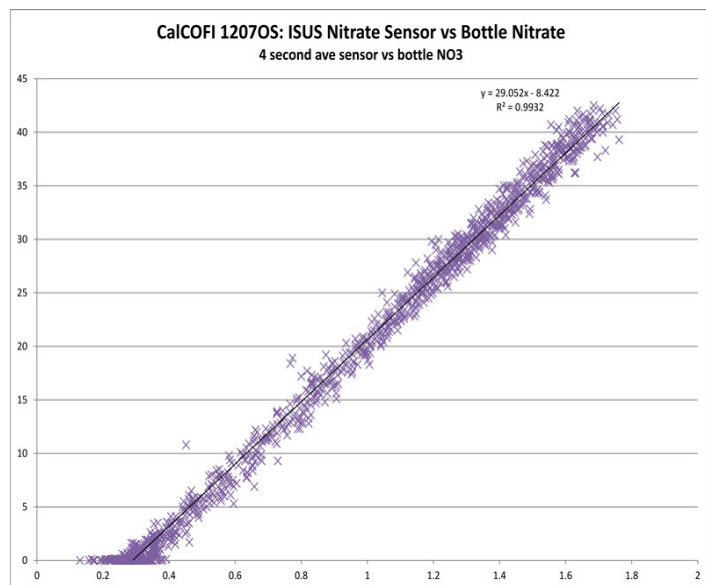


([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_Ox1umVsOxB.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_Ox1umVsOxB.jpg))

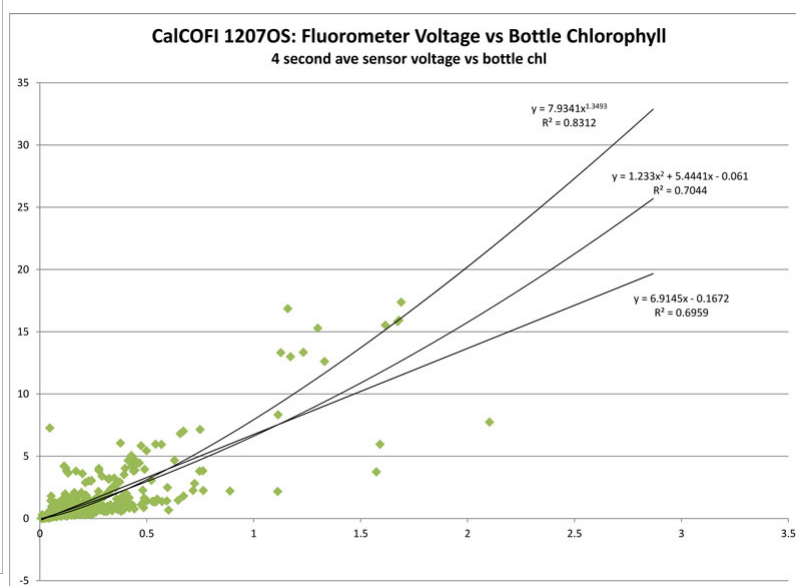
([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_Ox2VsOxB.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_Ox2VsOxB.jpg))



([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_Ox2umVsOxB.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_Ox2umVsOxB.jpg))



([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_ISUSVsNO3.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_ISUSVsNO3.jpg))



([http://www.calcofi.org/downloads/cruise\\_data/2012/1207/Final\\_regression\\_plot/1207OS\\_FIVVsChla.jpg](http://www.calcofi.org/downloads/cruise_data/2012/1207/Final_regression_plot/1207OS_FIVVsChla.jpg))

General Note on 1207OS CTD Casts & Processing; 2017 reprocessing notes added

09Mar2017 reprocessed, adding data-quality code columns, and data codes on bad or missing data ("9") or questionable data ("8"). Data values should not have changed from the 2014 Final CTD data. But the column number on updated CTD.csvs has changed from 65 to 82. Refer to the CTD.csv data format webpage: 65-column index (<http://calcofi.org/data/data-formats/607-ctd-csv-format-65cols.html>); 82-column index (<http://calcofi.org/data/data-formats/577-ctd-csv-format-qc.html>)

- 1). Sailing on RV Ocean Starr. Wanting to test the CTD winch and wire, the first station was 93.3 30.0. Prior to the first cast, a eight was put on both winches to pay out enough to rewrap the drums and test hydraulics. Everything appeared fine so a full 515m CTD cast was performed.
- 2). On cast 2, a strand of the CTD wire broke at 515m, more broke as the CTD was raised so the bottle closures were aborted. Only the 515m terminal bottle was closed. July 3rd 2012
- 3). Since the CTD conductive wire was bad, the ship returned to San Diego and the cruise was postponed till new wire could be shipped & installed. The Cruise resumes after 7 days, on July 10th 2012.
- 4). Cast 5, SCCOOS sta 91.7 26.4 5m bottle did not close. The CTD was sent back to 5m after the surface bottle was closed and another 5m bottle was closed. Bottle #1 broke during recovery.
- 5). Cast 11 - ISUS dropout at 150m to 315m during the downcast.
- 5a). Cast 18 - 382m bottle salt looks bad, removed
- 6). Cast 21 - shallow chlorophyll max; ISUS dropout 214-276m downcast.
- 6a). Cast 25 - ISUS dropout at 214-270m downcast
- 7). Cast 32 - ISUS battery not working - data coded "9". Changed after cast.
- 8). Cast 37 - ~800m Santa Monica Basin Station, altimeter flakey so rosette may have touched bottom. Secondary O2 sensor data on upcast looks bad - will be replaced. Upcast secondary conductivity-salinity sensor data also look questionable; both secondary salinity and secondary oxygen data coded "8" on upcast. Primary sensor data look fine.
- 9). Cast 38 - new SBE43 O2 sensor installed on secondary O2 channel pre-cast.
- 10). Cast 39 - 40m bottle did not close, sent back down to 40m to get water after surface bottle was closed.
- 11). Cast 45 - extra LTER 10m bottle forgotten, CTD went back down after surface closure for the extra 10m bottle.
- 12). Cast 50 - rough weather begins...through cast 53
- 13). Cast 62 - upcast data may be compromised by jellyfish being sucked into the pump on the upcast. Data between 470-380m on upcast looks fishy.
- 14). Rough weather again Cast 64-69..
- 15). Cast 66 - extra bottle fired at 240m by mistake, skipped. 87m bottle missed so CTD-rosette was lower back down after missing that depth.
- 16). Cast 69 - ISUS voltage dropout 371-438m downcast.
- 17). Cast 72 - extremely calm sea conditions. ISUS voltage dropout 243-322m downcast. Salinity & oxygen upcast data look bad from 33-0m, biofouling suspected. Small fuel leak delayed secchi after Bongo net tow.
- 18). Cast 73 - ISUS dropout 251-320m downcast.